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PEER EVALUATIONS: ARE WOMEN OFFICERS RATED DIFFERENTLY?

E. Sue Mohr

PERSONNEL ACCESSION AND UTILIZATION TECHNICAL AREA

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RATED DIFFERENTLY?

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PEER EVALUATIONS: ARE WOMEN OFFICERS RATED DIFFERENTLY?

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PEER EVALUATIONS: ARE WOMEN OFFICERS RATED DIFFERENTLY?

BACKGROUND

Peer, or associate, ratings have a long tradition of use in the Armed Forces in evaluating leadership potential and ability (Stogdill, 1974), notably at the U.S. Military Academy and in Officer Candidate selection and evaluation. The basic paradigm in this type of rating is to have each member of a predefined group estimate (by rating, ranking, or nomination) the leadership potential of every other group member. However, certain factors may affect the validity of these ratings. One such factor is the sex of the rater and/or ratee. Because the evaluation of "leadership ability" is dependent on perceptual experiences, ratings may be influenced by stereotyped preconceptions of the sex role.

The change to an all-volunteer Army has raised issues about how projected personnel needs will be met. Although women have been in the military for over 50 years, their involvement has been restricted by quotas on the number of women recruited, by limits on the military occupational specialties (MOS) available to women, and by ceilings on the rank women officers have been able to attain. In 1974, however, it was estimated that by 1979 the number of enlisted women in the Army would be around 50,000, four times the 1972 figure (Wobster, 1974).

Furthermore, since combat MOS are the only ones not open to women, 434 of the total 482 Army MOS are now available to them. Although an increase in the number of women helps the Army maintain qualitative as well as quantitative standards, certain problems are introduced by the growing numbers of women. The introduction of women officers into employment areas historically reserved for men poses special problems. For example, clashes may occur between expectations of appropriate behaviors for females as women versus appropriate behaviors for females as supervisors.

Although the influence of sex on peer evaluations has not been investigated, previous research has indicated that peer ratings are relatively insensitive to certain other situational variables. For example, reliability is maintained even though peer ratings are not conducted in a face-to-face situation (Lewin, Dubno, and Akula, 1971), group members have known each other for only short periods of time (Hollander, 1957), and changes are made in the composition of the group (Medland and Olans, 1964). Also, though peer ratings have been criticized as popularity contests, friendship does not drastically affect validity coefficients (Hollander, 1956; Horrocks and Wear, 1953; Peterson, Komorita, and Quay, 1964; Waters and Waters, 1970; Wherry and Fryer, 1949).

While these results are fairly consistent, care must be taken when generalizing to non-white and/or non-male members of the population. There is some evidence to suggest that the race of the rater/ratee may have significant effects on sociometric types of rating procedures (e.g., Mann, 1958). In military settings, using both a forced-choice

rating technique (deJung and Kaplan, 1962) and a complete ranking procedure (Cox and Krumboltz, 1958), raters were found to give significantly higher ratings to individuals of their own race than to those of another race. This effect was more marked for black than for white raters.

On the other hand, when a forced distribution type of peer rating was administered in an industrial setting (Schmidt and Johnson, 1973), racial biases were not found. These results may be explained by the fact that in this case the ratings were obtained immediately following a human relations council, when group members may have been more sensitive to, and aware of, racial issues.

If peer ratings are sensitive to bias from racial variables, they may also be sensitive to sex variables. While there is no direct evidence to this effect, research with other evaluative procedures has shown biases as a function of the sex of the rater or ratee. For example, leadership style is affected by the sex of the leader (Bartol, 1974; Bartol and Butterfield, 1974; Megaree, 1969). Laboratory work in the area of perceived sex differences has suggested that the abilities and performance of individuals may be differentially perceived as a function of their sex (Clark, 1974; Deaux and Taynor, 1973; Goldberg, 1968; Pheterson, Kiesler, and Goldberg, 1971; Rosen and Jurdee, 1973; Taynor and Deaux, 1973). However, when research was moved out of the college laboratory and into more applied areas, no differences were found in perceived leadership effectiveness as a function of the sex of either the perceiver or the perceived (Day and Stogdill, 1972; Osborn and Vicars, 1975). Currently, while it is difficult to draw any conclusions from these results, it seems clear that sexual biases do exist in different rating situations.

Conflict between job demands and traditional sex-role stereotypes may have an impact on perceived leadership abilities; this conflict may be especially significant for the military. Although women are now playing a more active and comprehensive role in society in general, and in the Army in particular, no reported research was found on the effect of sex on peer ratings. Because this rating technique is being considered for expanded use as an assessment tool in Army officer school, study of the interaction of sex and peer ratings was needed.

As part of a larger research effort, a preliminary investigation was conducted to find whether there were indications of a possible sex bias in peer ratings. The primary objective was to note whether differences in peer ratings, either given or received, occurred as a function of the sex of the officers giving and receiving the ratings. The secondary objective, should varying effects of sex bias be found, was to investigate correlates of those differences.

METHOD

SAMPLE

Data were collected on 10 female and 30 male newly commissioned officers attending the 12-week Adjutant General Officer Basic Course (OBC). One man and one woman were first lieutenants; the remaining officers were second lieutenants.

INSTRUMENTS

Peer ratings. Associate ratings measure leadership potential. During the final week of the course, each member of the class nominated, in alternating fashion, six fellow members considered to have "the most leadership potential" and six with "the least leadership potential." A high nomination received a weight of 3, a low nomination a weight of 1, and no nomination a weight of 2. Results of these ratings were then summed for each individual, and a mean score was obtained. This mean score represents a person's leadership potential as judged by other members of the group. Complete instructions are given in the Manual for Administration of Officer Basic Course (OBC) Associate Ratings (PT 4949), the U.S. Army Standard Rating Form (PT 4839), and the Guide for Coding the U.S. Army Standard Rating Form (PT 4885) (see Appendix A).

Achievement and attitude measures. The Officer Evaluation Battery (OEB), a series of tests designed as a diagnostic measure of leadership and career potential, was administered to the students during the first week of the course. The OEB was developed by the Army Research Institute for the Behavioral and Social Sciences (Helme, 1968; Helme, Willemin, and Grafton, 1974). The battery was standardized on an all-male sample and has been found to be predictive of effective leadership in the field. The OEB is currently being standardized on mixed-sex samples.

The seven subtests of the OEB are:

1. Combat Leadership Cognitive (CLC), composed of questions relating to practical skills and military tactics
2. Combat Leadership Non-Cognitive (CLN), emphasizing physical activity in the outdoors
3. Technical-Managerial Cognitive (TMC), which is a composite of two kinds of information, math/science and history/politics/culture, and which correlates highly with general intelligence
4. Technical-Managerial Non-Cognitive (TMN), which tests interests and proficiencies in math and the sciences, and verbal-social leadership qualities
5. Career Potential Cognitive (CPC), dealing with military technology and management

6. Career Potential Non-Cognitive (CPN), which measures preference for combat over administrative jobs, and for manual and physical labor over white collar work

7. Career Intention (CI), which directly measures Army career intentions.

Final class grades, which are weighted combinations of various classroom examinations, were also collected.

RATING GROUPS

Four different rater/ratee groups were analyzed: males rating males (MM); males rating females (MF); females rating males (FM); and females rating females (FF). With these four rating groups, it was possible to examine both the sources and the objects of bias. The method used for scoring the nominations would not allow a significant difference between raters but would allow opportunity for either a ratee or interaction term to be significant. A statistically significant interaction term would be suggestive of a rating bias. A significant ratee effect could be the result of either real sex differences in leadership potential or a rating bias shared by both sexes, or both.

RESULTS

Table 1 presents the means, standard deviations, and t-tests of differences for the variables for men and women. Men scored significantly better than women on the Combat Leadership Cognitive, Career Potential Cognitive, and Combat Leadership Non-Cognitive scales. Women scored better on the Career Intention scale. No differences were found on the remaining three scales.

Table 2 presents the results of a 2×2 (sex of rater by sex of ratee) unweighted means analysis of variance with repeated measures across ratees. Female officers were rated significantly lower by both men and women officers than were their male counterparts [$F(1,38) = 4.61, p < .05$].

Table 3 presents the correlation of peer rating scores with OEB scale scores for the four rater/ratee groups (Appendix B presents the entire intercorrelation matrix for men and women). The relationship between peer ratings and general achievement as signified by score on the Technical-Managerial Cognitive scale was significantly different from zero for females rated by females. Male peer evaluation scores received by men and women were significantly related to Combat Leadership Non-Cognitive scale scores.

Table 1
VARIABLE MEANS, STANDARD DEVIATIONS, AND T-TESTS
OF DIFFERENCES FOR MEN AND WOMEN

Variables	Raters				<u>t-test</u>
	Mean	S.D.	Mean	S.D.	
Males (N = 30)		Females (N = 10)			
Male Raters--Peer Evaluations	2.05	.27	1.81	.29	*
Female Raters--Peer Evaluations	2.04	.31	1.86	.31	*
Combat Leadership Cognitive	99.1	24.6	54.1	12.0	5.53**
Technical-Managerial Cognitive	101.7	25.3	95.7	20.4	.68
Career Potential Cognitive	99.4	20.4	78.1	22.0	2.81*
Combat Leadership Non-Cognitive	96.1	18.7	76.0	20.1	2.89*
Technical-Managerial Non-Cognitive	100.7	21.4	96.2	15.6	.61
Career Potential Non-Cognitive	85.9	16.7	83.6	10.4	.35
Career Intentions	97.4	17.7	123.4	9.5	4.41**
Final Grade	86.7	3.7	81.8	5.2	3.27*

* see Table 2.

* p < .05

** p < .01

Table 2

ANALYSIS OF VARIANCE OF SEX OF RATER BY SEX OF RATEE,
PEER EVALUATION DIFFERENCES

Source	Sum of Squares	df	Mean of Squares	F
Sex of Ratee	6731.0	1	6731.0	4.61*
Error Between	55543.2	38	1461.7	
Sex of Rater	53.2	1	53.2	- ^a
Sex of Ratee x Rater	136.5	1	136.5	- ^a
Error Within	13561.2	38	356.9	

* p < .05

^a F < 1.00

Table 3
CORRELATIONS BETWEEN PEER EVALUATIONS AND
OEB SUBTESTS SCORES FOR MEN AND WOMEN

Group	OEB Subtest	Peer Evaluation	
		Female Rater	Male Rater
Women			
	Combat Leadership Cognitive	.14	-.07
	Technical-Managerial Cognitive	.66*	.04
	Career Potential Cognitive	.49	.01
	Combat Leadership Non-Cognitive	.48	.41
	Technical-Managerial Non-Cognitive	.51	.47
	Career Potential Non-Cognitive	-.29	-.18
	Career Intentions	-.03	-.38
	Final Grade	.57	-.01
Men			
	Combat Leadership Cognitive	.26	.09
	Technical-Managerial Cognitive	.12	-.24
	Career Potential Cognitive	.21	.13
	Combat Leadership Non-Cognitive	.38*	.40*
	Technical-Managerial Non-Cognitive	.26	.12
	Career Potential Non-Cognitive	-.03	.02
	Career Intentions	.13	.24
	Final Grade	.14	-.08

* p < .05

The six possible differences between correlations were treated using two methods. For tests of MM vs FM and FF vs MF, Hotelling's formula for testing differences between correlated correlation coefficients was used. All other tests were based on the formula for uncorrelated coefficients of correlation (Guilford, 1965).

Table 4 presents the results of tests between correlated correlation coefficients. For groups MM vs FM, only the coefficient between peer ratings and the Technical-Managerial Cognitive scale of the OEB was significantly different ($p < .05$). Women rating men weighed general intelligence more heavily in evaluating leadership potential than did men rating men. For groups FF vs MF, again, differences were found between rating groups only for the Technical-Managerial Cognitive scale. Women weighed general intelligence factors more heavily in evaluating leadership potential ($p < .05$) than did men, whether they were rating men or women.

Table 4
DIFFERENCES IN CORRELATED CORRELATION COEFFICIENTS
BETWEEN PEER RATINGS AND OEB SUBTESTS

OEB Subtest	t-Value for Difference	
	MM vs FM	FF vs MF
Combat Leadership Cognitive	-.48	.70
Technical-Managerial Cognitive	-2.26*	3.71*
Career Potential Cognitive	-.47	2.01
Combat Leadership Non-Cognitive	.13	.26
Technical-Managerial Non-Cognitive	-.83	.22
Career Potential Non-Cognitive	.23	-.52
Career Intent	.65	1.81
Class Standing	-.59	1.96

* $p < .05$

Table 5 presents the results of testing differences for uncorrelated correlation coefficients between peer ratings and OEB scales for MM vs MF, FF vs FM, MF vs FM, and MM vs FF. The only significant difference was found with the Technical-Managerial Cognitive scale when women rated women vs men rating men. Consistent with other findings, women again weighed Technical-Managerial Cognitive factors more heavily than men when evaluating leadership potential.

Table 5
DIFFERENCES IN UNCORRELATED CORRELATION
COEFFICIENTS BETWEEN PEER RATINGS AND OEB SUBTESTS

OEB Subtest	z-Value for Difference			
	MM vs MF	FF vs FM	MF vs FM	MM vs FF
Combat Leadership Cognitive	.38	-.29	-.81	-.14
Technical-Managerial Cognitive	-.67	1.60	-.19	-2.45*
Career Potential Cognitive	.29	.95	-.48	-1.60
Combat Leadership Non-Cognitive	-.05	.29	.10	-.24
Technical-Managerial Non-Cognitive	-1.07	.69	.57	-1.05
Career Potential Non-Cognitive	.48	-.64	-.36	.76
Career Intent	1.52	-.38	-1.26	.64
Class Standing	-.74	1.31	.31	-1.74

* p < .05

DISCUSSION

Preliminary work on the use of peer ratings as a performance assessment device in mixed-sex officer groups indicates that women are rated lower by both males and females on leadership potential than their male colleagues. They also scored less well on the OEB. The present effort was unable to answer the question of whether this difference in perceived leadership ability was due to real differences or to bias. Conceivably, the OEB, which was standardized on all-male samples, may be exhibiting bias also.

Actual differences in leadership skill may exist, perhaps produced by an interaction of such factors as women's tendency to refuse to assume leadership over men (Megaree, 1969) or that, because of a presumption of incompetence, women may be given fewer opportunities than men to influence groups (Berger, Cohen, and Zelditch, 1972) and therefore lack leadership experience.

On the other hand, low "ascribed" status tends to handicap individuals who want to achieve status within a group (Katz, 1970). Being female in an all- or nearly all-male group could be considered as being of low ascribed status. Women in the Army, even in a relatively neutral sex-role occupation in the Adjutant General career field, may thus operate at a disadvantage at the beginning of group membership, since persons of low ascribed status are considered to have low competency until proved otherwise (Wahrman and Pugh, 1974). Thus, women, simply because they are women, may be initially perceived as less competent (Deaux, 1974; Deaux and Emswiller, 1974).

Logically, general intelligence should be the most important factor for success as an administrator. Men and women scored the same on the Technical-Managerial Cognitive scale of the OEB, the scale most akin to a general intelligence factor. However, only for women rating women was this factor significant in the peer ratings. When men were evaluated by men and women, the noncognitive aspects of combat leadership were emphasized, aspects irrelevant to administration (Helme, Willemin, and Grafton, 1971; Helme et al., 1974; Mohr and Helme, 1975). The conflict between expected and obtained outcomes suggests that bias may have been operating.

Since any army's primary mission is combat, it may be that "leadership" was interpreted as "combat leadership" even for a noncombat branch--and combat leadership, except in extreme emergencies, has traditionally been seen as inappropriate for women. Correlation coefficients in Table 3 seem to support this idea, since, for both men and women, combat leadership noncognitive activities are substantially related to peer ratings.

Further and more comprehensive investigations into the potential problems of sex bias in peer ratings are needed. If the peer evaluation methodology is at fault, specificity in the form of differential rating scales could be added to the currently broadly defined dimensions of leadership potential. If sex role conflicts produce biased judgments,

specificity may help to eliminate the source of these conflicts. If true differences exist, training programs might reduce these differences. In any event, if women are to be fairly and accurately evaluated in the Army, caution is called for prior to operational use of peer ratings as a personnel assessment device for women.

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APPENDIXES

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APPENDIX A INSTRUCTION AND FORMS USED FOR ASSOCIATE RATINGS

ADMINISTRATION OF OFFICER BASIC COURSE (OBC) ASSOCIATE RATINGS

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SECTION I
PREPARATION FOR RATINGS

1. Purpose

The OBC Associate Ratings are designed to measure the OBC student's leadership potential. This measure is obtained by having each member of a group evaluate his fellow members and nominate those he considers to have high leadership potential and those he considers to have lower leadership potential. These results are then compiled into a score for each group member which represents his leadership potential as judged by the other members of his group.

2. General Instructions

a. The OBC Associate Ratings are to be administered in a physical situation which assures adequate spacing so that individual privacy is provided. In addition, care should be taken in the collection of the completed ratings so that full confidentiality is maintained. The rating sessions are to be conducted in accordance with the instructions given in the following paragraphs of this manual without deviation. Rating forms were developed in accordance with the principles of test construction set forth in Chapter 10 "Ratings as Measures of Usefulness," in DA Pamphlet 611-2, Army Personnel Tests and Measurement. The principles of administration followed are from chapter 11 "The Administration of Army Tests" in the same reference. Strict adherence to the principles is required.

b. The rating session is not a timed situation. However, it is expected that each rating session can be completed in twenty minutes, including seating, distribution of materials, rating administration, and collection of completed ratings.

c. Two rating sessions are to be conducted: One near the middle of the training program and one near the completion of training.

3. Materials Required

- a. For the administrator. The materials required are:
1. A copy of this Manual PT 4949
 2. A copy of the OBC Associate Rating Form, PT 4839
 3. A copy of the Guide for Coding the U. S. Army Standard Rating Form, PT 4885
 4. (Final Rating Session Only). A copy of the U. S. Army Associate Rating Questionnaire (ARQ), PT 4929
 5. A copy of the Standard Answer Sheet, DS -1120
 6. Extra #2 pencils
- b. For each rater. The materials required are:
1. A copy of the OBC Associate Rating Form, PT 4839, with the rater's group roster printed thereon
 2. A copy of the Guide for Coding the U. S. Army Standard Rating Form, PT 4885
 3. (Final Rating Session Only). A copy of the U. S. Army Associate Rating Questionnaire, PT 4929
 4. One Standard Answer Sheet, DS-1120
 5. Two #2 pencils

SECTION II

CONDUCT OF THE RATING SESSION

4. Instructions-Ratings

- a. The instructions which are indented and printed in larger type are to be read aloud. In reading the instructions aloud, read slowly and distinctly, making sure that the students are following you.

b. When the students are seated, say:

We are now going to distribute the materials for The Officer Basic Course Associate Ratings. Do not begin any work on these forms until you are told to proceed. When you do begin to work on the forms, be sure to use only a #2 pencil. Do not use ballpoint pens or fountain pens. When you receive your forms, check the name roster on the Associate Rating Form to see that you have the correct form for your _____ (use rating group name, i. e. platoon, squad, class, etc.). (pass out materials) The Department of the Army is conducting research on the use of student associate ratings as an additional measure of career potential of the individual Army officer. These ratings will be used in combination with other performance evaluations for career guidance and career development purposes. Rating results will not be used to replace present evaluation such as OER'S and academic records, but will be used as additional data in conjunction with these measures for more accurate and refined appraisal.

The _____ (name your OBC school) School is participating in this research program through conduct of

associate ratings within each _____ (use rating group name). These ratings are for research purposes and will not become part of the official DA Records. These ratings will however be used by the school.

The instructions which follow are phrased in terms of operational administration and the results obtained will be instrumental in a later policy decision on adopting the program. Therefore, you should complete your ratings in accordance with these instructions, and conscientiously follow all procedures as though the results were to be used operationally by the Department of the Army.

Now take your "OBC Associate Rating Form," and the "Guide For Coding The U. S. Army Standard Rating Form." Turn the rating form so that the "Social Security Number" block is in the lower right hand corner. Follow the instructions in Section A of the guide, and example given, to enter and code your own social security number. (allow time for this coding)

In the upper right hand corner "special codes," enter

in columns 1-4 the class number and fiscal year. This is class number and fiscal year _____. (Provide numbers, e.g. 0174; a zero is to be entered in column 1 for a single digit class number.)

In column 5, enter a 1 (one) for the ratings given at mid-course and a 2 (two) for ratings given at the end of the course.

In column 6, enter your military status: 1 for Regular Army, 2 for other American student, and 3 for Allied student.

In column 7, enter a zero.

In column 8, enter your group number. See the heading on the Rating Form.

If only one page read:

In column 9 enter a zero.

If two pages read:

You have two pages of ratings. The page number for the sheet is identified in the heading. In column 9 enter a 1 for page 1 and a 2 for page 2.

Now code these numbers in the same manner in which you have coded your social security number.

c. Answer any questions, and permit time for completion of the coding, then say:

Now look at the roster on your rating form, and considering all of the other members pick the one officer you consider to have the most leadership potential. Base your judgment on your experiences and observations of this individual.

Then in the rating column opposite the officers name, blacken in the space under "H," number 7. Refer to section B on your Guide for Coding for an example of how to enter your rating.

Now identify among the fellow-members of your roster the one officer you consider to have the least leadership potential. Then in the rating column opposite his name, blacken the space under "L," number 1.

d. Allow time for raters to make their choices, then say:

Now continue your evaluations among the remaining members of the roster, selecting first your next choice for most and then your next choice for least. (pause)
Continue in this manner, alternating your high and low choices until you have marked six choices for most and six choices for least.

NOTE: If rating group is less than 20 change number of choices to 4.

e. Allow time for completion of these selections; when everyone has finished, say:

Check to be sure that you have rated six individuals in the "H" column and six individuals in the "L" column. Now, for all of the remaining names on the list which have not been assigned either a most, "H," or least, "L," blacken in the "4" space. This step is for machine processing accuracy and checking only and will not affect the ratings. Turn the rating form over, and print and sign your name on the back.

5. Instructions-Questionnaire (Final Rating Session Only--Completion of OBC Questionnaire)

Pass out the Associate Rating Questionnaire PT 4929.

Then say:

You have completed your ratings, now take the Associate Rating questionnaire. Read the directions and fill in the information as instructed. Answer the questions fully and frankly.

6. Disposition of Data

a. When all raters have completed the ratings, arrange for collection of all rating materials prior to dismissal of the class. Be sure that these materials are collected in such a manner that privacy and confidentiality are maintained, then dismiss the class.

b. The collected rating forms should be reviewed by the rating administrator as soon as possible after completion of the session to check that the coding has been done properly, and that an appropriate number of "H" and "L" ratings has been given. In case of obvious errors or discrepancies in the ratings, the administrator should contact the individual rater privately to resolve errors and discrepancies, prior to release of the rating forms for ADP processing.

End.

SPECIAL CODES	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	0	1	3	5	7
3	3	6	9	0	1	4	7	8	5
4	4	8	0	1	3	5	2	6	9
5	5	0	1	4	3	6	8	7	2
6	6	1	3	5	2	4	7	9	8
7	7	2	4	6	8	0	3	5	9
8	8	5	7	9	6	4	1	3	2
9	9	8	5	2	7	0	6	3	1

NAME		RATING	NAME		RATING
1	Y N	L H 1 2 3 4 5 6 7	2	Y N	L H 1 2 3 4 5 6 7
3	Y N	L H 1 2 3 4 5 6 7	4	Y N	L H 1 2 3 4 5 6 7
5	Y N	L H 1 2 3 4 5 6 7	6	Y N	L H 1 2 3 4 5 6 7
7	Y N	L H 1 2 3 4 5 6 7	8	Y N	L H 1 2 3 4 5 6 7
9	Y N	L H 1 2 3 4 5 6 7	10	Y N	L H 1 2 3 4 5 6 7
11	Y N	L H 1 2 3 4 5 6 7	12	Y N	L H 1 2 3 4 5 6 7
13	Y N	L H 1 2 3 4 5 6 7	14	Y N	L H 1 2 3 4 5 6 7
15	Y N	L H 1 2 3 4 5 6 7	16	Y N	L H 1 2 3 4 5 6 7
17	Y N	L H 1 2 3 4 5 6 7	18	Y N	L H 1 2 3 4 5 6 7
19	Y N	L H 1 2 3 4 5 6 7	20	Y N	L H 1 2 3 4 5 6 7
21	Y N	L H 1 2 3 4 5 6 7	22	Y N	L H 1 2 3 4 5 6 7
23	Y N	L H 1 2 3 4 5 6 7	24	Y N	L H 1 2 3 4 5 6 7
25	Y N	L H 1 2 3 4 5 6 7	26	Y N	L H 1 2 3 4 5 6 7
27	Y N	L H 1 2 3 4 5 6 7	28	Y N	L H 1 2 3 4 5 6 7
29	Y N	L H 1 2 3 4 5 6 7	30	Y N	L H 1 2 3 4 5 6 7
31	Y N	L H 1 2 3 4 5 6 7	32	Y N	L H 1 2 3 4 5 6 7
33	Y N	L H 1 2 3 4 5 6 7	34	Y N	L H 1 2 3 4 5 6 7
35	Y N	L H 1 2 3 4 5 6 7	36	Y N	L H 1 2 3 4 5 6 7
37	Y N	L H 1 2 3 4 5 6 7	38	Y N	L H 1 2 3 4 5 6 7
39	Y N	L H 1 2 3 4 5 6 7	40	Y N	L H 1 2 3 4 5 6 7
41	Y N	L H 1 2 3 4 5 6 7	42	Y N	L H 1 2 3 4 5 6 7
43	Y N	L H 1 2 3 4 5 6 7	44	Y N	L H 1 2 3 4 5 6 7
45	Y N	L H 1 2 3 4 5 6 7	46	Y N	L H 1 2 3 4 5 6 7
47	Y N	L H 1 2 3 4 5 6 7	48	Y N	L H 1 2 3 4 5 6 7
49	Y N	L H 1 2 3 4 5 6 7 <th>50</th> <td>Y N</td> <td>L H 1 2 3 4 5 6 7</td>	50	Y N	L H 1 2 3 4 5 6 7

PT - 4839 FOR OFFICIAL USE ONLY (When Completed) **U.S. ARMY STANDARD RATING FORM**

GUIDE FOR CODING THE U. S. ARMY STANDARD RATING FORM (PT - 4839)

CODING IDENTIFYING INFORMATION

Read all the instructions on this page and study the example. Be sure that you understand the instructions thoroughly before completing the Social Security Number (SSN) block on your answer sheet.

- 1 First, in the boxes at the top enter the digits of your Social Security Number. Omit hyphens and record only the nine digits of the Number.
- 2 Next, after entering the digits of your Social Security Number in the boxes at the top, code each digit, including zeroes, by making a single heavy mark in the appropriate number space for each column, as shown in the example below.

EXAMPLE: SSN: 515404953

Social Security Number								
5	1	5	4	0	4	9	5	3
0	0	0	0	0	0	0	0	0
1	—	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	—
4	4	4	—	4	4	4	4	4
—	5	—	5	5	5	5	—	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9

CODING RATING INFORMATION

To Code MOST

Identify the individual you want to code as MOST

Then, find his name on the roster and code the "H" block in the "Rating" column to the right of his name.

Sample

NAME	1	RATING	FILL IN THIS ENTIRE BLOCK						
1 BAELOCK, JAMES	Y N	L	1	2	3	4	5	6	7

To Code LEAST

Identify the individual you want to code as LEAST

Then find his name on the roster and code the "L" block in the "Rating" column to the right of his name.

Sample

NAME	1	RATING	FILL IN THIS ENTIRE BLOCK						
2 MARCUM, ROBERT	Y N	H	1	2	3	4	5	6	7

MAKE NO MARKS ON THIS SHEET

PT 4885

APPENDIX B COMPLETE INTERCORRELATION MATRIXES

Table B-1

COMPLETE INTERCORRELATION MATRIX FOR MALE OFFICERS
BEING RATED ON ALL MEASURES

	Total Peer	MM	FM	CLC	TMC	CPC	CLN	TMN	CPN	CI	Class Standing
Total Peer	1.00	.9670*	.7795*	.1495	-.1493	.1719	.4270*	.1727	-.0247	.2278	-.0015
Peer, MM	1.00	.5946*	.0862	-.2380	.1321	.3986*	.1187	.0212	.2416	-.0535	
Peer, FM	-	1.00	.2610	.1210	.2144	.3756*	.2604	-.0268	.1343	.1306	
CLC		1.00	.5156*	.5995*	.2774	.0863	-.0542	.1011	.5455		
TMC			1.00	.5831*	-.1310	.1398	.0509	-.1939	.4316		
CPC				1.00	.0249	.0712	.1032	.1598	-.2510		
CLN					1.00	.4500*	.1421	.3052	-.1163		
TMN						1.00	-.1344	-.3079	-.1228		
CPN							1.00	.0905	-.3616		
CI								1.00	-.0009		

* p < .05

Table B-2

**COMPLETE INTERCORRELATION MATRIX FOR FEMALE OFFICERS
BEING RATED ON ALL MEASURES**

		Total Peer	MF	FF	CLC	TMC	CPC	CLN	TMN	CPN	CI	Class Standing
Total Peer	1.00	.9786*	.7994*	-.0094	.2121	.1356	.4559	.5149	-.2279	.3133	.3590	
Peer, MF	1.00	.6600*	-.0706	.0350	.0067	.4128	.4724	-.1784	.3786	.2456		
Peer, FF		1.00	.1472	.6606*	.4861	.4787	.5115	-.2949	-.0335	.5863		
CLC			1.00	.6236	.1838	-.4216	-.1604	-.2036	.3489	.5337		
TMC				1.00	.6652*	.0661	.1518	-.3450	.2471	.7643		
CPC					1.00	.2337	.0276	-.1254	.3281	.7355		
CLN						1.00	.8879*	-.1667	.0836	.1385		
TMN							1.00	-.0751	-.0302	.0485		
CPN								1.00	-.1681	-.6174		
CI									1.00	.4434		

* $P < .05$